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4700 Keele Street, Toronto, Ontario M3J 1P3, Canada. *Small Four Weight Spin Models.*

Given a four-weight spin models  $(W_1, W_2, W_3, W_4; d)$ , we construct the type-II matrix

$$W = \begin{pmatrix} \frac{1}{d}W_1^T & -\frac{1}{d}W_1^T \\ W_2 & W_2 \end{pmatrix}.$$

Using the structure of the Nomura algebra of  $W$ , we search for small four-weight spin models. (Received March 02, 2009)